UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
HASSAN, AURANGZEB

ART UNIT	PAPER NUMBER
2182	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/781,489	SIMMONS ET AL.
	Examiner	Art Unit	
	Aurangzeb Hassan	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 August 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/8/2006</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1 – 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly amended claims received on 8/2/2006 put the claims in condition for lack of written description. The applicant's invention as according to the specification involves three input mode buttons, a mouse mode, a pen mode and an auto mode. The description of the invention further conveys functionality of the current invention when an auto mode input button has been toggled and how auto mode functions. With newly amended claims citing a stipulation of "without a user input associated with an input mode button", the Examiner asserts that there is a lack of written description to convey functionality without a user input associated with the auto input mode button.

3.   Claims 1 – 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. As per the lack of written description 112 1st rejection above, one of ordinary skill in the art would not be able to utilize the current invention by the preface of the newly amended condition of reverting input modes "without a user input associated with an input mode button". The Examiner asserts that according to the specification the auto mode, which is "an input mode button", must be selected to utilize the current invention and the applicant's amendments directly contradict the specification.

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 1 – 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As per the 112 1st rejections above the claims 1 – 20 are indefinite as to utilization of the current invention.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claim 1-3, 5, 10-12, and 14 are rejected under 35 U.S.C. 102(b) as being

anticipated by Hawkins et al. (US Patent Number 5,133,076).

8.   As per claim 1, Hawkins teaches a method of automatically switching between

computer-enabled input modes, comprising:

        enabling a selection-based input mode whereby input is accepted via a selection-

based input device (keyboard, element 22, figure 2b, keyboard is connected, column

12, lines 17 – 19);

        initiating use (stylus touches screen, column 4, lines 60 – 63) of a pen-based

input device by detecting that the pen-based input device is proximal a screen(stylus,

element 29, figure 1); and

        in response to initiating use of a pen-based input device, automatically switching

from the selection-based input mode to a pen-based input mode without a user input

associated with an input mode button (overlay controller determines coordinates and

stylus functions as a pointer, column 4, lines 63 – 65).

The examiner notes the switching of modes from a pen-based to selection-based

modes are done through the utilization of hardware interrupts on the interrupt line

(element 436, figure 10). The examiner further notes on the user end hardware

computational method of Hawkins translate to automatic behavior as claimed by the

applicant and will be applied as selection without additional user input for claims 1 – 20.

9.   As per claim 2, Hawkins teaches a method comprising initiating use of a

selection-based input device by moving the selection-based input device; and

in response to initiating use of a selection-based input device, automatically

switching from the pen-based input mode back to the selection-based input mode

without user input associated with an input button (shifts from keyboard emulation mode

to actual keyboard interaction, column 12, lines 17 – 53).

10.   As per claim 3, Hawkins teaches a method prior to enabling a selection-based

input mode selecting an automatic input switching mode (based on interrupts for

keyboard switches between pen emulation and keystroke modes, column 12, 47 – 53).

11.   As per claim 5, Hawkins teaches a method whereby the selection-based input

device is a keyboard (keyboard, element 22, figure 2b).

12.   As per claim 10, Hawkins teaches a method further comprising latching the pen-

based input device so that the pen-based input device behaves as a selection-based

input device (by touching the display on the bottom segment 13b pen is latched into the

keyboard emulation mode, column 9, lines 49 – 53, figure 6).

13.   As per claim 11, Hawkins teaches a method whereby while the pen-based input

device is latched for behavior as a selection-based input device, using the pen-bases

input device as a selection-based input device (pen is used for keyboard emulation ,

figure 6, stylus may emulate a mouse or enter keystroke data, column 9, lines 49 – 53).

14.   As per claim 12, Hawkins teaches a method comprising initiating use of the

selection-based input device; and

in response to initiating use of the selection-based input device, automatically

unlatching the pen-based input device from behaving as a selection-based input device

(shifts from keyboard emulation mode to actual keyboard interaction, column 12, lines

17 – 53).

15.   As per claim 14, Hawkins teaches a method whereby initiating use of the

selection-based input device includes selecting a keyboard key (keyboard, element 22,

figure 2b).

Claim Rejections - 35 USC § 103

16.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

17.   Claims 4, 6-9, 13, 15, 16, and 17-20 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Hawkins in view of Chang (US Patent Number 5,063,376).

18.   As per claim 4, Hawkins fails to teach a method whereby the selection-based

input device is a mousing device.

In an analogous method Chang teaches a method whereby the selection-based

input device is a mousing device (figure 1, column 5, lines 14 – 23).

It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to modify the method of Hawkins with the above teachings of

Chang. One of ordinary skill in the art would have been motivated to make such

modification in order to have a more dynamic key enabled in combination with a

pointing device in one unit as a peripheral as a conventional keyboard (column 7, lines

32- 33).

19.   Hawkins as modified by the teachings of Chang as applied in claim 4 above, as

per claim 6, Hawkins teaches a method comprising latching (analog mode, column 3,

lines 45 – 47) the selection-based input device so that the selection-based input device

behaves as a pen-based input device (allows for pen functionality in drawing, column 3,

lines 31 – 39).

20.   Hawkins as modified by the teachings of Chang as applied in claim 4 above, as

per claim 7, Hawkins teaches a method whereby while the selection-based input device

is latched for behavior as a pen-based input device, using the selection-based input

device as a pen-based input device (when in analog mode allows for drawing with

features of depth, column 3, lines 40 – 57).

21.   As per claim 8, Hawkins teaches a method further comprising initiating use of the

pen-based input device; and

in response to initiating use of the pen-based input device, automatically

unlatching the selection-based input device from behaving as a pen-based input device

(when the stylus touches screen pen is initiated, column 4, lines 60 – 63).

22.   As per claim 9, Hawkins teaches a method whereby initiating use of the pen-

based input device includes movement of the pen-based input device whereby said

pen-based input device is operative to input data when the pen-based input device is

engaged with a computer-enabled display screen operative to receive input from the

pen-based input device (stylus touches screen, column 4, lines 60 – 63).

23.   Hawkins as modified by the teachings of Chang as applied in claim 4 above, as

per claim 13, Chang teaches a method whereby initiating use of the selection-based

input device includes moving a mousing device (figure 1, column 5, lines 14 – 23).

24.   As per claim 15, Hawkins teaches a computer-readable medium having

computer executable instructions for automatically switching between computer-enabled

input modes, the instructions comprising:

enabling a selection-based input mode whereby input is accepted via a selection-based input device (keyboard, element 22, figure 2b, keyboard is connected, column 12, lines 17 – 19);

initiating use of a computer-enabled electronic pen (stylus, element 29, figure 1) when the electronic pen is engaged with a computer-enabled display screen operative to receive input from the electronic pen (stylus touches screen, column 4, lines 60 – 63);

in response to initiating use of the computer-enabled electronic pen, automatically switching from the selection-based input mode to a pen-based input mode without a user input associated with an input mode button (KBEP monitoring the overlay controller allows for initiating of pen to bring about pen based use along with handwriting software, column 10, lines 13 - 33).

Hawkins fails to teach a method of automatically switching between computer-enabled input modes, comprising: initiating use of a mousing device; and in response to initiating use of the mousing device, automatically switching from the pen-based input mode to the selection-based input mode.

In an analogous method, Chang teaches a method of automatically switching between computer-enabled input modes, comprising: initiating use of a mousing device by moving the mousing device (figure 1, column 5, lines 14 – 23); and in response to initiating use of the mousing device, automatically switching from the pen-based input mode to the selection-based input mode without a user input associated with an input mode button (used as a conventional mouse as discerned by software, column 7, lines 42 – 52).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to modify the method of Hawkins with the above teachings of

Chang. One of ordinary skill in the art would have been motivated to make such

modifications in order to allow for a more dynamic selection-based pointing device in

portable system.

25.   Hawkins as modified by the teachings of Chang as applied in claim 15 above, as

per claim 16, Chang teaches a method whereby the selection-based input device is a

mousing device (figure 1, column 5, lines 14 – 23).

26.   As per claim 17, Hawkins teaches a method whereby the selection-based input

device is a keyboard (keyboard, element 22, figure 2b).

27.   As per claim 18, Hawkins teaches a method of automatically switching between

computer-enabled input modes, comprising:

    enabling a selection-based input mode whereby input is accepted via a selection-

based input device (keyboard, element 22, figure 2b, keyboard is connected, column

12, lines 17 – 19);

    initiating use of a pen-based input device (stylus touches screen, column 4, lines

60 – 63);

    in response to initiating use of a pen-based input device, automatically switching

from the selection-based input mode to a pen-based input mode (KBEP monitoring the

overlay controller allows for initiating of pen to bring about pen based use along with

handwriting software, column 10, lines 13 - 33);

initiating use of a selection-based input device (keyboard interaction, column 12,

lines 40 – 43);

in response to initiating use of a selection-based input device, automatically

switching from the pen-based input mode back to the selection-based input mode (shifts

from keyboard emulation mode to actual keyboard interaction, column 12, lines 17 –

53);

latching the pen-based input device (by touching the display on the bottom

segment 13b, column 9, lines 49 – 53) so that the pen-based input device behaves as a

selection-based input device (stylus may emulate a mouse or enter keystroke data,

column 9, lines 49 – 53);

initiating use of the selection-based input device (keyboard interaction, column

12, lines 40 – 46); and

in response to initiating the use of the selection-based input device, automatically

unlatching the pen-based input device from behaving as a selection-based input device

(shifts from keyboard emulation mode to actual keyboard interaction, column 12, lines

17 – 53).

Hawkins fails to teach a method of automatically switching between computer-

enabled input modes, comprising: latching the selection-based input device so that the

selection-based input device behaves as a pen-based input device; and initiating use of

the pen-based input device, and in response to initiating use of the pen-based input

device, automatically unlatching the selection-based input device from behaving as a

pen-based input device.

Chang teaches in analogous method, latching the selection-based input device

so that the selection-based input device behaves as a pen-based input device; and

initiating use of the pen-based input device, and in response to initiating use of

the pen-based input device, automatically unlatching the selection-based input device

from behaving as a pen-based input device (discerned by software to be utilized as a

pointing device, column 7, lines 42 – 52).

It would have been obvious to one of ordinary skill in the art at the time of the

applicant's invention to modify the method of Hawkins with the above teachings of

Chang. One of ordinary skill in the art would have been motivated to make such

modifications in order to allow for a more dynamic selection-based pointing device in

portable system.

28.   Hawkins as modified by the teachings of Chang as applied in claim 15 above, as

per claim 19, Chang teaches a method whereby initiating use of the selection-based

input device includes moving a mousing device (figure 1, column 5, lines 14 – 23).

29.   As per claim 20, Hawkins teaches a method whereby initiating use of the

selection-based input device includes selecting a keyboard key (keyboard, element 22,

figure 2b).

Response to Arguments

Before the Examiner addresses the Applicant's arguments, the Examiner would respectfully like to make of the record that the amendments to the claims directly contradict the invention as described in the specification as shown in the 112 rejections above.

30.   Applicant's arguments filed 8/2/2006 have been fully considered but they are not persuasive.

1.) Hawkins does not teach initiating use of a pen-based input device by detecting that the pen-based input device is proximal/detecting an engagement a screen.

2.) Hawkins does not teach in response to initiating use of a pen-based input device, automatically switching from the selection-based input mode to a pen-based input mode without user input associated with an input mode button.

3.) Chang does not teach initiating use of a mousing device by moving the mousing device.

31.   As per argument 1, the Examiner respectfully disagrees. The Applicant has not shown how the cited passage from the 1st Office Action (page 4, item 6, lines 6-7) fails to show how a pen-based mode has not been initiated by detecting that the pen-based input device is proximal/detecting an engagement a screen. Touching a screen shows proximity and engagement and as admitted by the applicant on page 6 of the

specification lines 13 – 19, "Mechanisms for operation of electronic pen and ink systems

with computer screen displays such as illustrated in Fig. 2 are well known to those

skilled in the art." According the Examiner agrees with the Applicant that one of

ordinary skill in the art would understand to connectivity involved in an electronic pen

touching the screen as shown in Hawkins and holds that Hawkins has a pen-based

initiation. Clearly from this citation both from Hawkins and the current application one of

ordinary skill in the art would realize that touching an electronic pen to a computer

screen display adheres the initiating use of a pen-based input device.

32.   As per argument 2, the Examiner disagrees. The Applicant has failed to

understand the mapping of the first Office Action and further has misinterpreted

Hawkins keyboard hardware interrupt. In the first Office Action the Examiner explicitly

mapped the citations from Hawkins citing a keyboard for the selection-based input and

a separate citation of an electronic pen for the pen-based input mode. In the

Remarks/Arguments received on 8/2/2006 the Applicant argues inconsistently. For the

pen-based input the Applicant has cited a passage directly dealing with the selection-

based input and not the original prior art citation provided by the Examiner

corresponding to Hawkins pen-based input. The Examiner asserts that in order to

overcome a rejection the Applicant must provide arguments corresponding to the

citations provided by the Examiner and not citations found elsewhere. (Please see 1st

Office Action) As per the passage the Applicant has cited the Examiner would like to

better explain Hawkins so it is better understood. Hawkins uses a hardware interrupt

caused by connecting the keyboard. This represents how the keyboard hardware interrupt is handled by registers and allows for switching of the input mode without any user input mode button. Clearly from this citation one of ordinary skill in the art would realize that all limitations of the claims have been fully expressed by Hawkins as seen in the 1st Office Action.

33.   As per argument 3, the Examiner respectfully disagrees. The 1st Office Action cited a combination of Hawkins and Chang. Hawkins teaches an input connective to a peripheral that is interfaced to the apparatus via hardware interrupt. Upon connecting a peripheral and utilization of said peripheral, a hardware interrupt is generated and handled by registers within the processing unit of the apparatus. Accordingly when the mouse seen in Chang is connected to the apparatus of Hawkins upon utilization of the mouse the hardware interrupt generated causes a switching over from the pen-based input to the selection-based input. All citations have been provided in the 1st Office Action. Clearly from the previously cited prior art in combination with the above explanations one of ordinary skill in the art would realize that a combination of Hawkins' apparatus with the peripheral of Chang fulfills an initiating functionality via a hardware interrupt and mouse has been initiated without an input mode button.

Conclusion

34.   (As cited in 1st Office Action) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Number 6,128,007 teaches a

system of automatically switching between a cursor and input mode relating to a pen-based and selection-based input. US Patent Number 6,243,258 teaches a system comprising a pen-based, selection-based input, and a physical switching mechanism that requires no user input to toggle between input device selections.

35.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

36.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aurangzeb Hassan whose telephone number is (571) 272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free).

AH
10/24/2006

KIM HUYNH
SUPERVISORY PATENT EXAMINER

10/30/06